

REMARKS

Status of Claims

Claims 1-23 have been canceled. Claims 23-44 are pending.

Claim Amendments

Claim 37 has been amended to correct a typographical error. Specifically, the enzyme “Ecp31I” has been amended to read “Eco31I”. As far as Applicant is aware, no enzyme exists under named “Ecp31I”. Applicant submits that this amendment to claim 37 does not involve any new matter.

Restriction Requirement

In the Request for Restriction mailed on June 25, 2007, the Examiner made a species restriction with respect to claim 37. Specifically, the species identified by the Examiner were:

- a. First and second restriction enzymes, Esp3I and Eco31I; and
- b. Fifth and sixth restriction enzymes, Ecp31I and Esp3I.

Applicant hereby elects to prosecute the enzyme Eco31I. This election is made with traverse.

First, Applicant would like to point out that there was a typographical error in claim 37 which has now been corrected via this amendment. Specifically, the enzyme “Eco31I” was mistakenly typed as “Ecp31I”. This amendment corrects this error. Thus, as will now be appreciated by the Examiner, the first and second and fifth and sixth restriction enzymes are identical.

Second, Applicant submits that the Examiner is incorrect that the species listed above do not relate to a single inventive concept. According to the Examiner, restriction enzymes Esp3I and Eco31I are drawn to unique polypeptides with unique primary structures, that while having similar function and display different enzymatic properties with respect to endonuclease activity and recognition sites. While the aforementioned statements made may be true; Applicant submits that claim 37 does not lack unity. Specifically, Applicant directs the Examiner’s attention to Section 1850 of the *MPEP*. In this portion of the *MPEP*, in section III entitled “Illustration of Particular Situations”, there is a section dealing with “Markush practice” that is discussed in more detail. Under IIIB, “Markush” practice is described as those situations involving a single claim that defines alternatives (albeit chemical or non-chemical). According to this part of the *MPEP*, “When the Markush grouping is for alternatives of chemical compounds, they shall be regarded as being of a similar nature when the following criteria are fulfilled:

- (A) All alternatives have a common property or activity; and
- (B) (1) A common structure is present, i.e., a significant structural element is shared by all of the alternatives; or
- (2) In cases where the common structure cannot be the unifying criteria, all alternatives belong to a recognized class of chemical compounds in the art to which the invention pertains.”

With respect to B(1) above, the MPEP states that the phrase “significant structural element is shared by all of the alternatives” refers to cases “where the compounds share a common chemical structure which occupies a large portion of their structures, or in case the compounds have in common only a small portion of their structures, the commonly shared structure constitutes a structurally distinctive portion in view of existing prior art, and the common structure is essential to the common property or activity.”

With respect to B(2) above, the phrase “recognized class of chemical compounds” means that there is an expectation from the knowledge in the art that members of the class will behave in the same way in the context of the claimed invention.

Although claim 37 does not use Markush language *per se*, it does refer to alternatives of chemical compounds, namely, Esp3I and Eco31I. Esp3I and Eco31I are restriction enzymes, specifically type IIS restriction enzymes (a recognized class of compounds) and thus have a common activity. In addition, Esp3I and Eco31I act on very similar recognition sites as shown below.

Enzyme	Recognition Site
Eco31I	GGTCTCN NNNN (SEQ ID NO:2)
Esp3I	CGTCTCN NNNN (SEQ ID NO:1)

Thus, in view of the aforementioned arguments, Applicant submits that the species Esp3I and Eco31I relate to a single inventive concept and the lack of unity rejection is improper and should be withdrawn.

REQUEST FOR RECONSIDERATION

Having addressed all outstanding rejections and overcome them, reconsideration and withdrawal of all claim rejections are respectfully requested. Applicants believe that the present application is in condition for allowance. Should the Examiner have any questions or would like to discuss any matters in connection with the present application, the Examiner is invited to contact the undersigned at

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